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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,959	01/15/2004	Linda Gail Bernard	71111 US 04	5051

7590 10/27/2006

Dennis V. Carmen
Eastman Chemical Company
P.O. Box 511
Kingsport, TN 37662-5075

EXAMINER	
RAZA, SAIRA B	

ART UNIT	PAPER NUMBER
1711	

DATE MAILED: 10/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/757,959	BERNARD ET AL.	
	Examiner	Art Unit	
	Saira Raza	1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 August 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *19-56* is/are pending in the application.

4a) Of the above claim(s) *30-56* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *19-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *1/15/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Group I, Claims 19-29 in the reply filed on 8/4/2006 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

2. Claims 30-56 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 29 recites the limitation "said polymer-platelet particle composite" in lines 1 and 2 of the claim. There is insufficient antecedent basis for this limitation in the claim. Claim 24, the claim from which claim 29 depends does not recite this limitation.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 19, 21-24, 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Speer et al. (US 5529833) in view of Okada et al. (US 4739007).

7. Speer discloses film structures using oxygen scavengers. Specifically, an oxygen scavenging composition comprising: (a) an ethylenically unsaturated hydrocarbon and (b) a transition metal catalyst. Wherein the composition is incorporated into a layer such as a film later, and novel articles for packaging oxygen sensitive products can be prepared therefrom (col. 3, lines 20-44).

8. Preferred substituted ethylenically unsaturated hydrocarbons include, but are not limited to, those with oxygen-containing moieties, such as esters and/or ethers. Such hydrocarbons also include polymers or copolymers derived from (meth)allyl (meth)acrylates (col. 4, lines 35-62).

9. Speer discloses that an ethylenically unsaturated hydrocarbon, (a), and transition metal catalyst, (b), may be further combined with one or more polymeric diluents, such as thermoplastic polymers which are typically used to form film layers in plastic packaging articles. Selecting combinations of diluent and (a) depends on the properties desired. Polymers which can be used as the diluent include, but are not limited to, polyethylene terephthalate (PET), polyethylene, ethylene-alkyl (meth)acrylates, in addition to others (col. 5, lines 40-67).

10. Speer discloses that suitable multi-layered articles include, but are not limited to, rigid containers, flexible bags, or combinations of both, wherein Speer discloses a multi-layer film comprised of five layers (col. 3, lines 66-67; col. 10, lines 59 to col. 12, line 65).

11. Speer fails to discloses that the oxygen scavenging composition is blended with recycled polyester; however, it would have been obvious to one of ordinary skill in the art at the time of the invention to employ recycled polyester in order to decrease the cost of initial ingredients. Wherein it appears that the invention would perform equally well with recycled polyester or polyester.

12. In reference to the claimed first layer, Speer discloses an abuse layer adjacent to an oxygen-scavenging layer. The abuse layer comprises polyamide with an anti-block additive, such as colloidal silica, finely divided silica, and clays (col. 8, lines 51-57; col. 10, lines 59 to col. 11, lines 33).

13. However, Speer fails to disclose that the abuse layer comprises at least one layered silicate material. Hence attention is directed towards the Okada reference. Okada discloses composite material with high mechanical strength and excellent high-temperature characteristics comprising a polymer matrix containing polyamide and layers of a silicate uniformly dispersed in the order of molecules in the polymer matrix (abstract). It is noted that Okada discloses inclusion of montmorillonite in the polyamide layered silicate (col. 4, lines 24-26). It would have been obvious to one of ordinary skill in the art at the time of the invention to substitute polyamide layered silicate for the polyamide-silica abuse layer in the invention of Speer in order to obtain an article with high mechanical strength and excellent high-temperature characteristics.

14. Claims 19-29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Speer et al. (US 5529833) in view of Turner (US 6417262).

15. Speer fails to teach that the abuse layer comprises at least one layered silicate material. Hence attention is directed towards the Turner reference. Turner discloses amorphous high barrier polyamides, and more particularly to polyamide nanocomposites comprising a high barrier amorphous polyamide and a clay material. These amorphous polyamides show unexpected resistance to haze formation, crystallization, and other defect formation in the presence of dispersed, treated or organically modified clays when undergoing orientation and other film processing steps (abstract; col.2, lines 36-43). Wherein a layered clay material is dispersed in the matrix polyamide. Preferred clay materials are phyllosilicates of the 2:1 type having a cation exchange capacity of 0.5 to 2.0 meq/g. The most preferred clay materials are smectite clay minerals, particularly bentonite or montmorillonite, more particularly Wyoming-type sodium montmorillonite or Wyoming-type sodium bentonite (col. 9, lines 19-25). It would have been obvious to one of ordinary skill in the art at the time of the invention to substitute polyamide layered silicate for the polyamide-silica abuse

layer in the invention of Speer in order to obtain a multi-layered article with resistance to haze formation, crystallization, and other defect formation.

16. In reference to claim 25, Turner discloses that multilayer articles may also contain one or more layers of the nanocomposite composition of the invention and one or more layers of a structural polymer. A wide variety of structural polymers may be used. Illustrative of structural polymers include polyesters (col. 12, lines 39-52). It would have been obvious to one of ordinary skill in the art at the time of the invention employ all the embodiments of the nanocomposite composition of Turner in the invention of Speer.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saira Raza whose telephone number is (571) 272-3553. The examiner can normally be reached on Monday-Friday from 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

James J. Seidleck
Supervisory Patent Examiner
Technology Center 1700